INHIBITION OF RENAL UPTAKE OF MOLECULES THAT ARE POTENTIALLY DAMAGING FOR THE KIDNEY

ABSTRACT OF THE INVENTION

The invention relates to the use of the combination of a first compound which is lysine, or an amino acid or other proteinaceous moiety having a free amino group with a pKa substantially similar or equal to that of lysine, or pharmaceutically acceptable salts or carboxyl derivatives thereof, and a second compound, which is a positively charged compound, or pharmaceutically acceptable salts or carboxyl derivatives thereof, for the preparation of a composition for inhibiting renal uptake of substances, in particular proteins or peptides, that may be damaging to the kidneys, and that are used for therapeutical or diagnostic purposes. The combination consists advantageously of lysine and arginine.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 25 January 2001 (25.01.2001)

PCT

(10) International Publication Number WO 01/05383 A3

- (51) International Patent Classification⁷: A 47/48, 51/06, A61P 35/00, A61K 51/08
- A61K 31/195,
- (21) International Application Number: PCT/EP00/06917
- (22) International Filing Date: 17 July 2000 (17.07.2000)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/144,106

16 July 1999 (16.07.1999) U

- (71) Applicant (for all designated States except US): MALLINCKRODT, INC. [US/US]; 675 McDonnell Boulevard, St. Louis, MO 63134 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KRENNING, Eric, Paul [NL/NL]; Hoflaan 71, NL-3062 JC Rotterdam (NL). DE JONG, Marion [NL/NL]; Eleonorstraat 119, NL-3135 PA Vlaardingen (NL). VALKEMA, Roelf [NL/NL]; Louise de Colignylaan 28, NL-2341 CK Oegstgeest (NL).

- (74) Agent: VAN SOMEREN, Petronella, Francisca, Hendrika, Maria; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- (88) Date of publication of the international search report: 19 July 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

A3

(54) Title: INHIBITION OF RENAL UPTAKE OF RADIOMOLECULES WITH A COMBINATION OF LYSINE AND ARGININE

(57) Abstract: The invention relates to the use of the combination of a first compound which is lysine, or an amino acid or other proteinaceous moiety having a free amino group with a pKa substantially similar or equal to that of lysine, or pharmaceutically acceptable salts or carboxyl derivatives thereof, and a second compound, which is a positively charged compound, or pharmaceutically acceptable salts or carboxyl derivatives thereof, for the preparation of a composition for inhibiting renal uptake of substances, in particular proteins or peptides, that may be damaging to the kidneys, and that are used for therapeutical or diagnostic purposes. The combination consists advantageously of lysine and arginine.